UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

21186 7590 04/08/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938

MINNEAPOLIS, MN 55402

EXAMINER
TS AL, SHENG JEN
ART UNIT PAPER NUMBER

DATE MAILED: 04/08/2008

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO.

10/643,585 08/18/2003 Steven L. Scott 137
TITLE OF INVENTION; LATENCY TOLERANT DISTRIBUTED SHARED MEMORY MULTIPROCESSOR COMPUTER

1376.700US1 4004

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$0 | \$0 | \$1440 | 07/08/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR INSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | ng the Patent, advance nerwise in Block 1, by | orders and notification of (a) specifying a new corr | maintenance fees v espondence address | vill be and/o | mailed to the current r (b) indicating a sepa | correspondence address as arate "FEE ADDRESS" for |
|---|--|--|---|--|---|---|---|
| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | | Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. | | | |
| SCHWEGMA P.O. BOX 2938 MINNEAPOLIS | 7590 04/08 N, LUNDBERG & S, MN 55402 | | | Cor | tificat. | o of Moiling or Trope | |
| | | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | L | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTO | R | ATTC | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/643,585 | 08/18/2003 | | Steven L. Scott | | | 1376.700US1 | 4004 |
| | | | ARED MEMORY MULTI | | | | |
| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUI | | EFEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | \$1440 | \$0 | \$0 | | \$1440 | 07/08/2008 |
| EXAM | IINER | ART UNIT | CLASS-SUBCLASS | ╛ | | | |
| TSAI, SH | | 2186 | 7II-I47000 | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTOSB/122) address (or Change of Correspondence Address Fee Address' indication form PTOSB/147 (see 0.362) or more recent) attached. Use of a Custome Number is required. Namber is required. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED O | | | or agents OR, alterna (2) the name of a sin registered attorney or 2 registered patent at listed, no name will be | (I) the names of up to 3 registered patent attorneys or agento OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. | | | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI | less an assignee is ident h in 37 CFR 3.11. Comp GNEE | ified below, no assigne pletion of this form is N | ee data will appear on the OT a substitute for filing a (B) RESIDENCE: (CIT | patent. If an assign n assignment. 'Y and STATE OR C | OUN" | ΓRY) | ocument has been filed for |
| 4a. The following fee(s) Issue Fee Publication Fee (N | vo small entity discount p | | 4b. Payment of Fee(s): (Pl A check is enclosed Payment by credit c The Director is herel overpayment, to Dep | ard. Form PTO-2038 | is att | ached. | shown above) ficiency, or credit any n extra copy of this form). |
| - 11 | s SMALL ENTITY state | as. See 37 CFR 1.27. | b. Applicant is no lo | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accep ites Patent and Tradema | ted from anyone other than rk Office. | the applicant; a regi | stered | attorney or agent; or the | ne assignee or other party in |
| Authorized Signature | | | | Date | | | |
| Typed or printed name | | | | Registration N | lo | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | CFR 1.311. The informa U.S.C. 122 and 37 CF USPTO. Time will varden, should be sent to O NOT SEND FEES OF | tion is required to obtain or R 1.14. This collection is early depending upon the ind the Chief Information Offi R COMPLETED FORMS | retain a benefit by t stimated to take 12 ividual case. Any co cer, U.S. Patent and IO THIS ADDRESS | he pub minute ommen Trader S. SEN | lic which is to file (and s to complete, including ts on the amount of ti- mark Office, U.S. Dep D TO: Commissioner | d by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 04/08/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------------|---------------|----------------------|---------------------|------------------|--|
| 10/643,585 | 08/18/2003 | Steven L. Scott | 1376.700US1 | 4004 | |
| 21186 7590 04/08/2008 | | | EXAMINER | | |
| SCHWEGMAN. | LUNDBERG & WO | TSAI, SHENG JEN | | | |
| P.O. BOX 2938 | | | ART UNIT | PAPER NUMBER | |
| MINNEAPOLIS, | MN 55402 | 2186 | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 188 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 188 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) | | |
|-----------------|------------------|--|--|
| 10/643,585 | SCOTT, STEVEN L. | | |
| Examiner | Art Unit | | |
| Sheng-Jen Tsai | 2186 | | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 3/12/2008.
- The allowed claim(s) is/are 1,3-8 and 11-18.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) \(\subseteq \text{Some* c} \) \(\subseteq \text{None of the:} \) a) \square All
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 3/12/2008 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. X Examiner's Amendment/Comment
- 8. T Examiner's Statement of Reasons for Allowance
- Other .

Application/Control Number: 10/643,585 Page 2

Art Unit: 2186

DETAILED ACTION

 This Office Action is taken in response to Applicants' Request for Continued Examination (RCE) filed on March 12, 2008 regarding application 10/643,585 filed on August 18, 2003.

2. Claims 1, 3-8 and 11-18 are pending under consideration.

EXAMINER'S AMENDMENT

- 3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- Authorization for this examiner's amendment was given in a telephone interview with Thomas F. Brennan (Reg. No. 35,0765) on 05/23/2007.

The application has been amended as follows:

Claim 18 is now amended to be:

"(Previously Presented) The method of claim 48 17, wherein the shared memory includes a plurality of cache coherence directories and wherein connecting includes coupling each processing node to one of the cache coherence directories."

Allowable Subject Matter

Claims 1, 3-8 and 11-18 are allowed.

Conclusion

Application/Control Number: 10/643,585 Art Unit: 2186

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheng-Jen Tsai whose telephone number is 571-272-

4178. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 571-272-4182. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sheng-Jen Tsai/ Partial Signatory Examiner, Art Unit 2186

March 31, 2008

/Matt Kim/

Supervisory Patent Examiner, Art Unit 2186



| Application/Control No. | Applicant(s)/Patent under Reexamination | | | |
|-------------------------|--|--|--|--|
| 10/643,585 | SCOTT, STEVEN L. | | | |
| Examiner | Art Unit | | | |
| Sheng- len Tegi | 2186 | | | |